

Work Order ID 105049

\*105049\*

Page 1

July-23-13 1:05:45 PM

Item ID: 647.9314

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Retainer Bracket

Start Date: 7/23/13

Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 7/23/13

Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Run Start

\*NR1\*

Approvals: Process Plan: MCS

Date: 13-07-24

Tooling:

Date:

Stop

\*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

647.9300

*n/c*

0.00

100

\*100\*

Bandsaw

Memo

0.00

Jeaspa Bandsaw

CUT AT 8.25" LONG

*6*

*0*

*13-D-01*

110

0.00

\*110\*

Outsource5

Memo

0.00

Outsource process - Machining

ISSUE P/O:

*22325*

POSSIBLE SUPPLIER: ARCHER PRECISION

Certificate of conformaty required

*CL 13/12/09 (6)*

115

Receive & Inspect for Damage & Mat'l Certs

0.00

\*115\*

Packaging

Memo

0.00

Packaging

*lex*

*SP 14-1-3*

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

# Work Order ID 105049

\*105049\*

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Item ID: 647.9314 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Retainer Bracket  
 Start Date: 7/23/13 Start Qty: 6.00 \*6\* Cust Item ID:  
 Required Date: 7/23/13 Req'd Qty: 6.00 \*6\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
117 *117* QC Quality Control	QC6- Inspect dimensions to drawing  Memo	0.00 0.00 27 9-89 11/17				6			
118 *118* HandFinish Hand Finishing	Memo REMOVE ALL PART MARKINGS	0.00 0.00 N/A				CZ			
120 *120* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1  Memo Issue P/O to ATG : 22580  1- Black Anodize as per Dwg 647.9300 2- PRIME AS PER DWG, SEE NOTE #2  Certification of Conformity is required	0.00 0.00				CZ 14/01/10 6			

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

# Work Order ID 105049

\*105049\*

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Item ID: 647.9314

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Retainer Bracket

Start Date: 7/23/13 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 7/23/13 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Run Start \*NR1\*

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

Receive & Inspect for Damage & Mat'l Certs

0.00

\*130\*

Packaging

Memo

0.00

Packaging

6/17/13 (C)

140

QC5- Inspect part completeness to step on W/O

0.00

\*140\*

QC

Memo

0.00

Quality Control

6

DAS 05

14-01-31

180

Identify as per dwg & Stock Location: STN 16

0.00

\*180\*

Packaging

Memo

0.00

Packaging

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

6x

DAS 28 9-89

14-02-3

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
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<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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**Work Order ID 105049****\*105049\***

Page 4

July-23-13 1:05:45 PM

Item ID: 647.9314

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Retainer Bracket

Start Date: 7/23/13 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 7/23/13 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

**\*190\***

QC

Memo

0.00

Quality Control

ML5 14-02-04

④ 14-02-03

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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# Picklist Print

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Page 1

Work Order ID: 105049

Parent Item: 647.9314

Parent Item Name: Retainer Bracket

Start Date: 7/23/13

Required Date: 7/23/13

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A NEW ISSUE 12-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.9314P		Purchased	No				Each	0.0000					
Retainer Bracket													
M7075T6B1.750X04.500		Purchased	No				f	9.7040					
7075-T6 BAR 1.750" X 4.500"													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT049		9.704							
				124383		9.664							
				124633		0.04							

COX 6 SP 14-1-3  
4.3578947  
~~4.156~~ 13-10-01  
4.156

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

APICAL  
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03706

SHEET 1 OF 2

DWG NO. 647.9300

REV. N/C

PREPARED  
BY B. PETERS

DATE: 11/16/12

EFFECT ON DWG  
☐ INC. ☒ UNINC.

DWG TITLE: BRACKETS

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]* QC *[Signature]*

EFF: NEXT ORDER

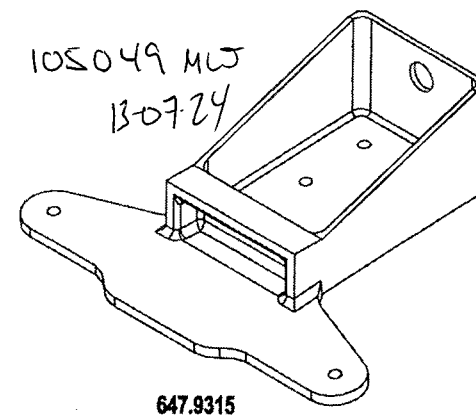
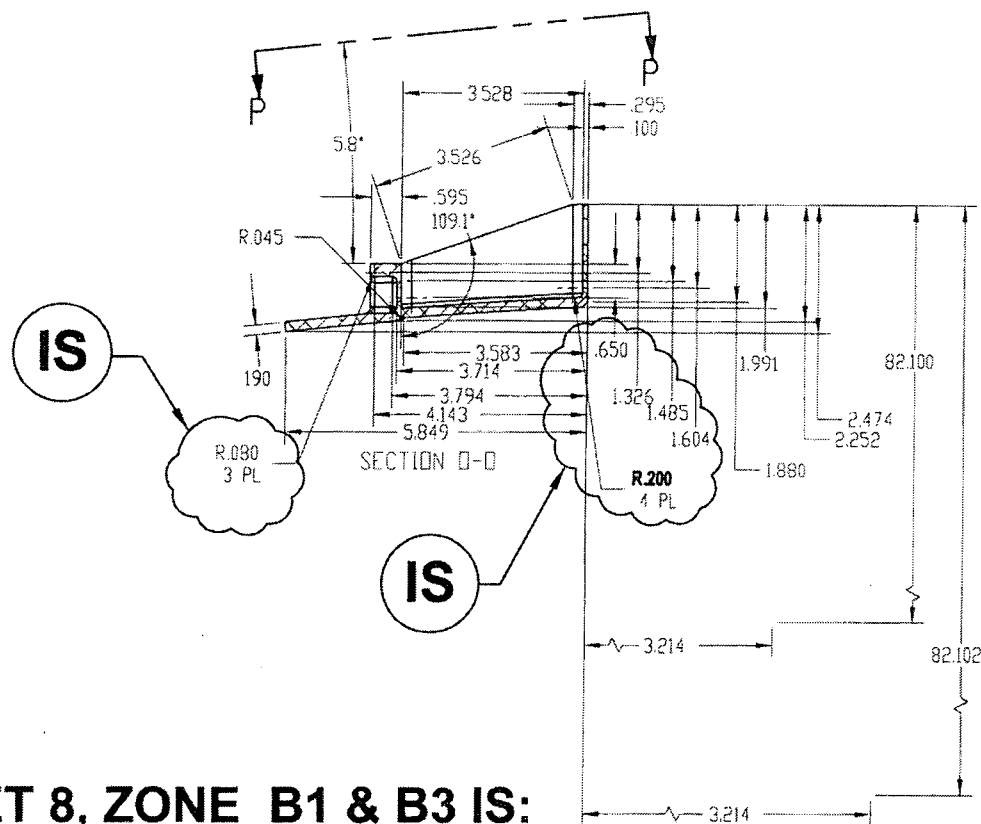
TRANSACTION CODES (TC):  
A-ADD C-CREATE  
R-REVISE D-DELETE

REASON: REVISED RADII ON 647.9315.

EQR: D-12-012

## SHEET 1, ZONE B4, NOTE 10 IS:

10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRJT, LAST MODIFIED 11-16-12.



## SHEET 8, ZONE A7 IS:

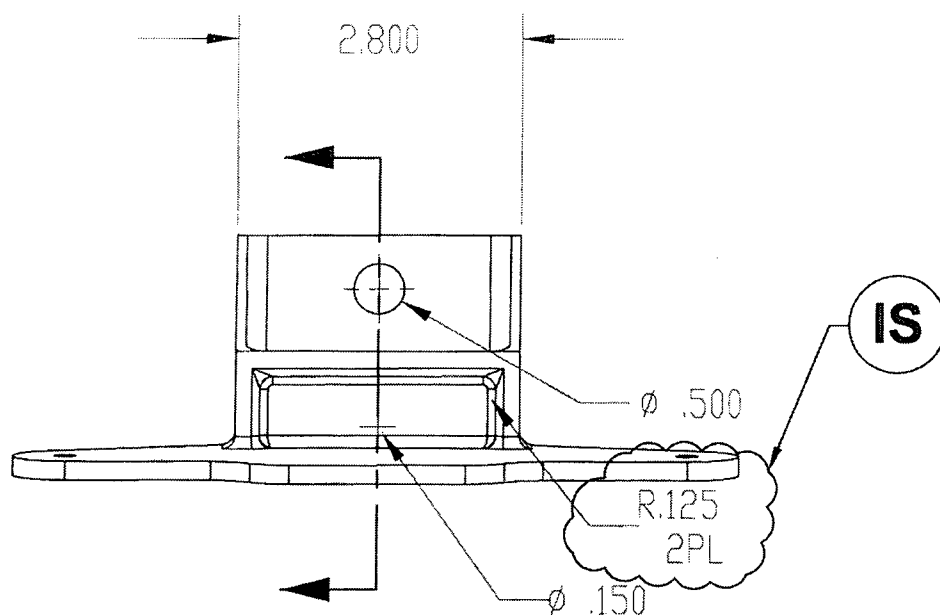
DOCUMENTS EFFECTED:

☐ RFMS ☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM

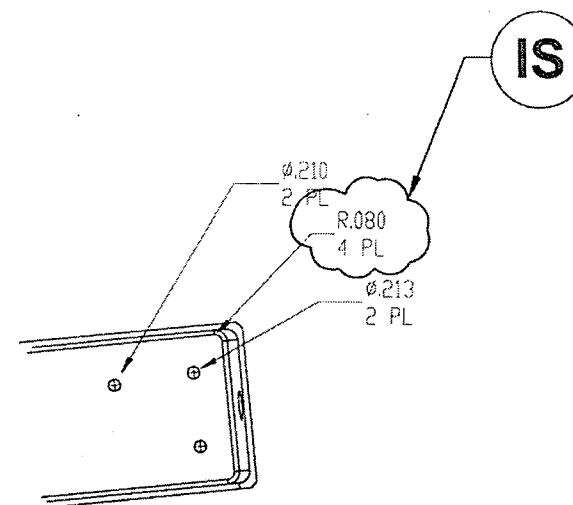
CHANGE CATEGORY  
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED  
☐ YES ☒ NO

105049



**SHEET 8, ZONE B6 IS:**



SECTION P-P

**SHEET 8, ZONE B8 IS:**

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

105049

APICAL  
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO 03209

SHEET 1 OF 2

DWG NO. 647.9300

REV: N/C

PREPARED BY A. QUAN

DATE: 11/09/11

EFFECT ON DWG  
☐ INC. ☒ UNINC.

DWG TITLE: BRACKET

APPROVED BY: ENGR

MFG

QC

EFF:

CURRENT ORDER AND STOCK

TRANSACTION CODES (TC):  
A-ADD C-CREATE  
R-REVISE D-DELETE

REASON: REVISED HOLE LOCATIONS ON 647.9314, ADDED HOLE 647.9315

**SHEET 1, ZONE B3:**

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.

2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE II, CLASS 2, COLOR: BLACK;  
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N.

3. DEBURR AND BREAK ALL SHARP EDGES.

4. IDENTIFY IAW MPP-120 LASER ENGRAVE CENTURY COHIC, 12 POINT P/N AND REVISION

5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10

6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10

7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10

8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10

9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 09-26-11

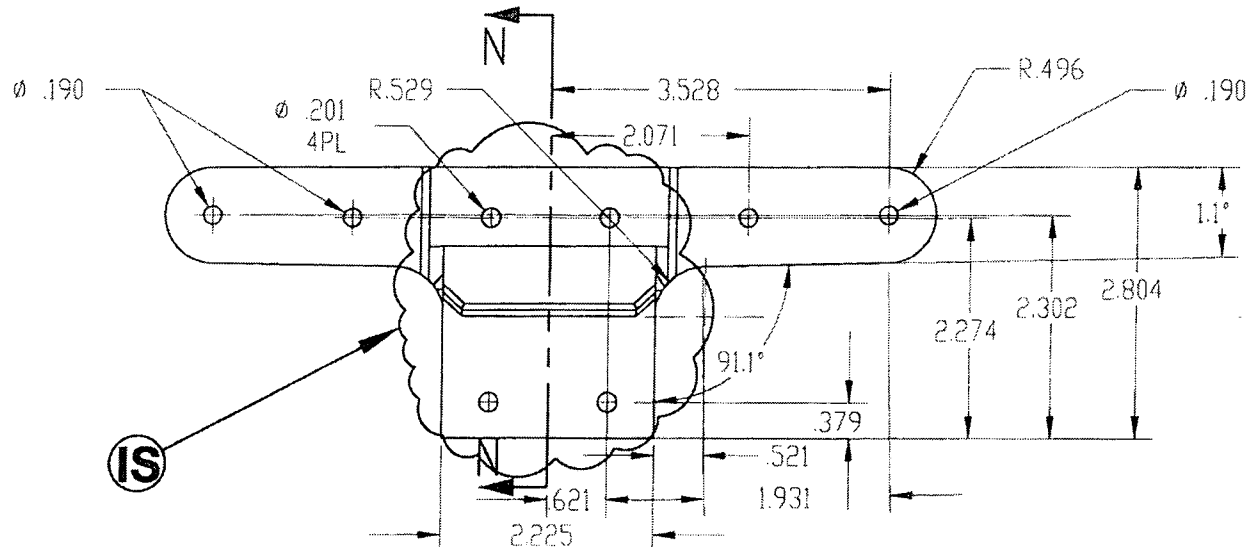
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 10-19-11

11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10

12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10

IS

**SHEET 7, ZONE B4:**



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION

105049

NOTES: UNLESS OTHERWISE SPECIFIED

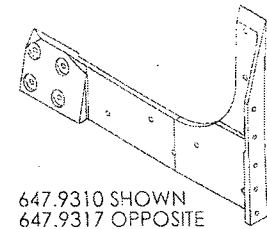
1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250, 12.
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR: BLACK; PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23377J TYPE I, CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.
5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.

UNINCORPORATED ECN(s)

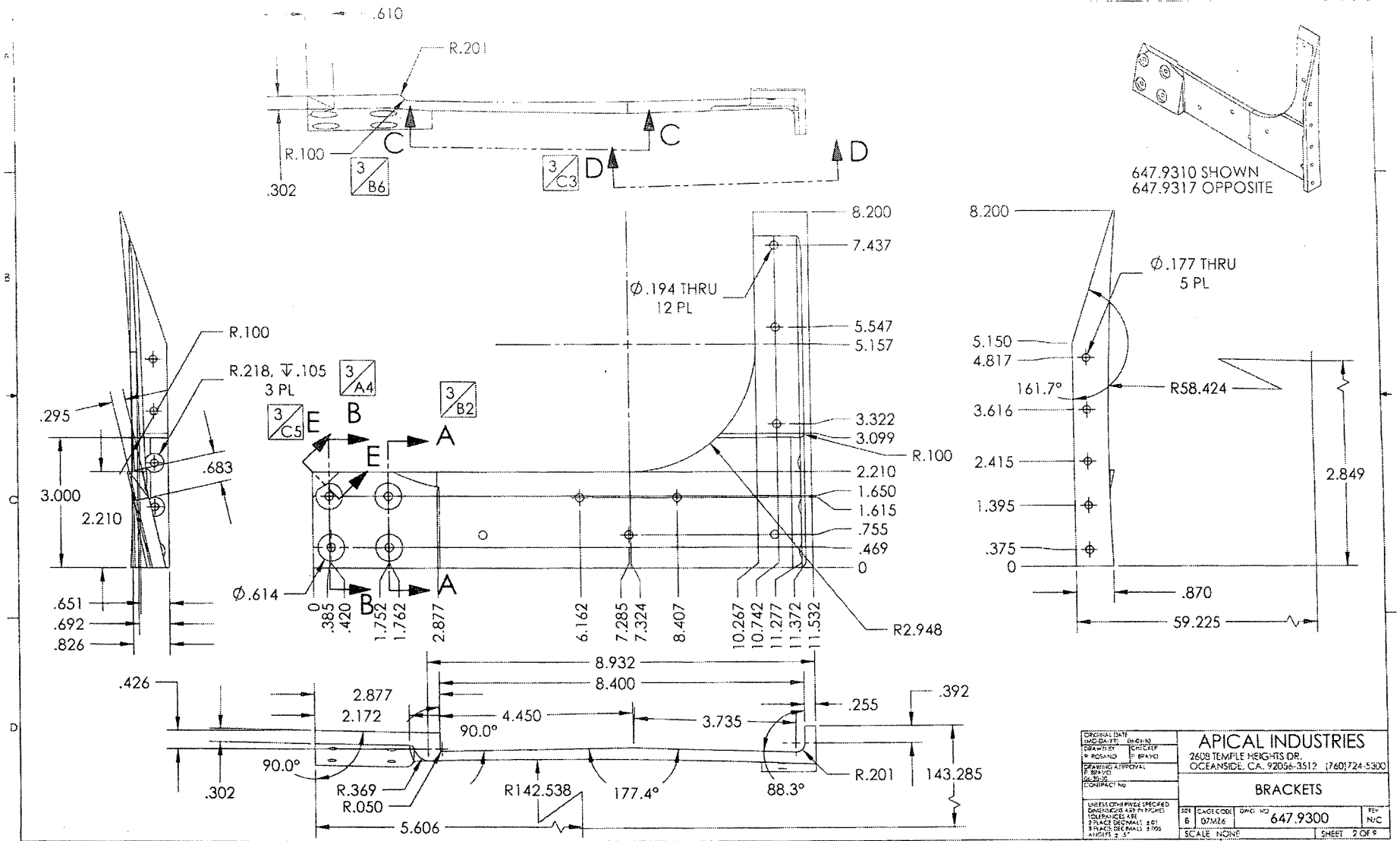
03209, 03706

		647.9317	RH BRACKET	△	△△
		647.9316	CROSSBAR	△	△△
			BRACKET		
		647.9315	RECEPTACLE	△	△△
			BRACKET		
		647.9314	RETAINER	△	△△
			BRACKET		
		647.9313	BRACKET	△	△△
		647.9312	BRACKET	△	△△
		647.9311	SUPPORT	△	△△
			BRACKET		
		647.9310	LH BRACKET	△	△△
	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY	PARTS LIST				
NEXT ASSY (S)	647.8900	ORIGINAL DATE APPROVED BY R. POLANO DATE 06-22-10 CORRECTIONS	ORIGINAL DATE APPROVED BY P. BRADY DATE 06-22-10 CORRECTIONS	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
			BRACKETS		
			REV. 1: 07/12/10 B 07/12/10	DWG. NO. 647.9300	REV. N/C
			SCALE: NONE SHEET 1 OF 9		

105049



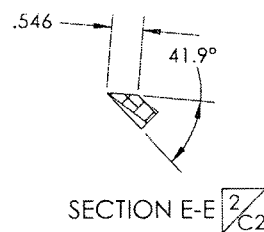
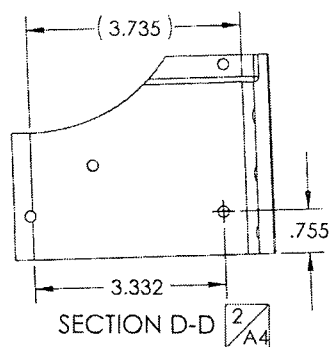
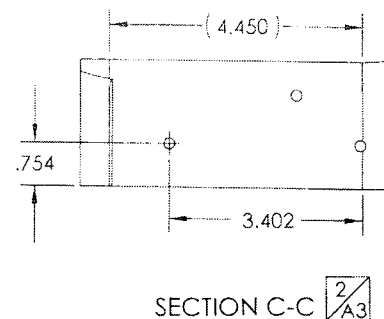
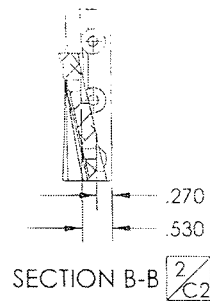
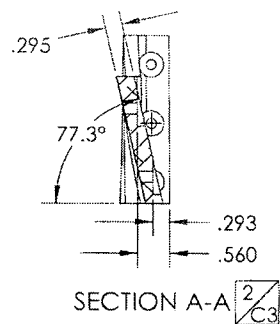
647.9310 SHOWN  
647.9317 OPPOSITE



ORIGINAL DATE 10/24/91			DESIGNED BY J. ROSSANO		
DRAWN BY J. BRAY			CHECKED BY J. BRAY		
DRAWING APPROVAL J. BRAY 06/30/96			APICAL INDUSTRIES 2630 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS .001 ANGLES .5°					
REV B	DATE 07/26/96	DRG. NO. 647.9300	REV N/C		
SCALE NONE			SHEET 2 OF 9		



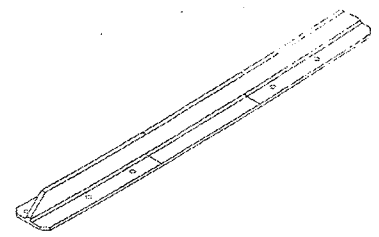
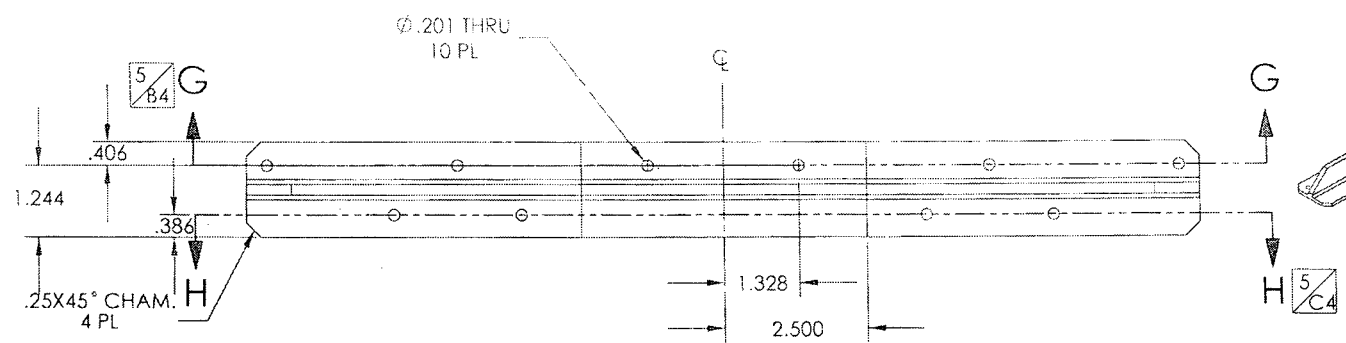
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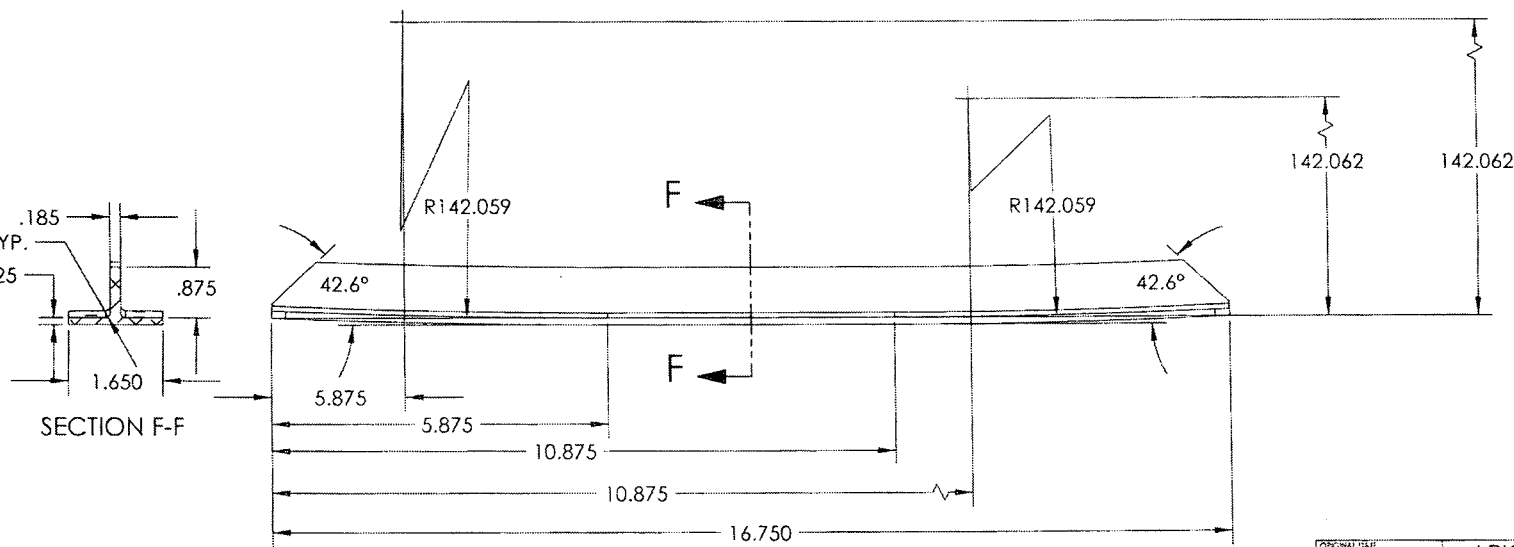
ORIGINAL DATE		APICAL INDUSTRIES	
DESIGNED BY		2608 TEMPLE HEIGHTS DR.	
DRAWN BY		OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY		BRACKETS	
APPROVED BY		UNLESS OTHERWISE SPECIFIED	
DATE		DIMENSIONS ARE IN INCHES	
		TOLERANCES ARE	
		2 PLACE DECIMALS	
		3 PLACE DECIMALS	
		ANGLES ± .5°	
REV	DATE	BY	REV
B	07/02/26	647.9300	N/C
SCALE NONE		SHEET 3 OF 5	

105049

A  
B  
C  
D



647.9311

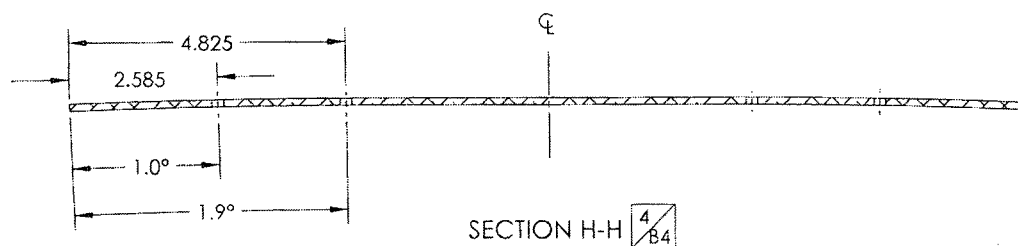
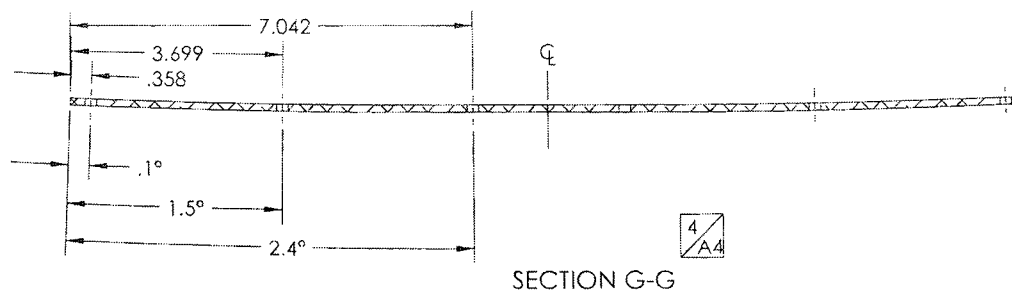


ORIGINAL DESIGNED BY: JACOBIA P. 06-01-06		APICAL INDUSTRIES 2528 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 1769/724-5300	
DRAWN BY: J. HOSKINS P. 07-01-00			
QUANTITY APPROVED BY: 00-00-00		B 92056-3512	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DECIMALS ARE TO BE PLACED 2. PLACE DECIMALS: 109 3. PLACE DECIMALS: 1916 ANGLES: 2.5°			
DATE	CODE	ENG. NO.	REV.
B	07/02/06	647.9300	N/C
SCALE: NONE		SHEET 4 OF 9	

**APICAL INDUSTRIES**  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92056-3512 (760)724-5300

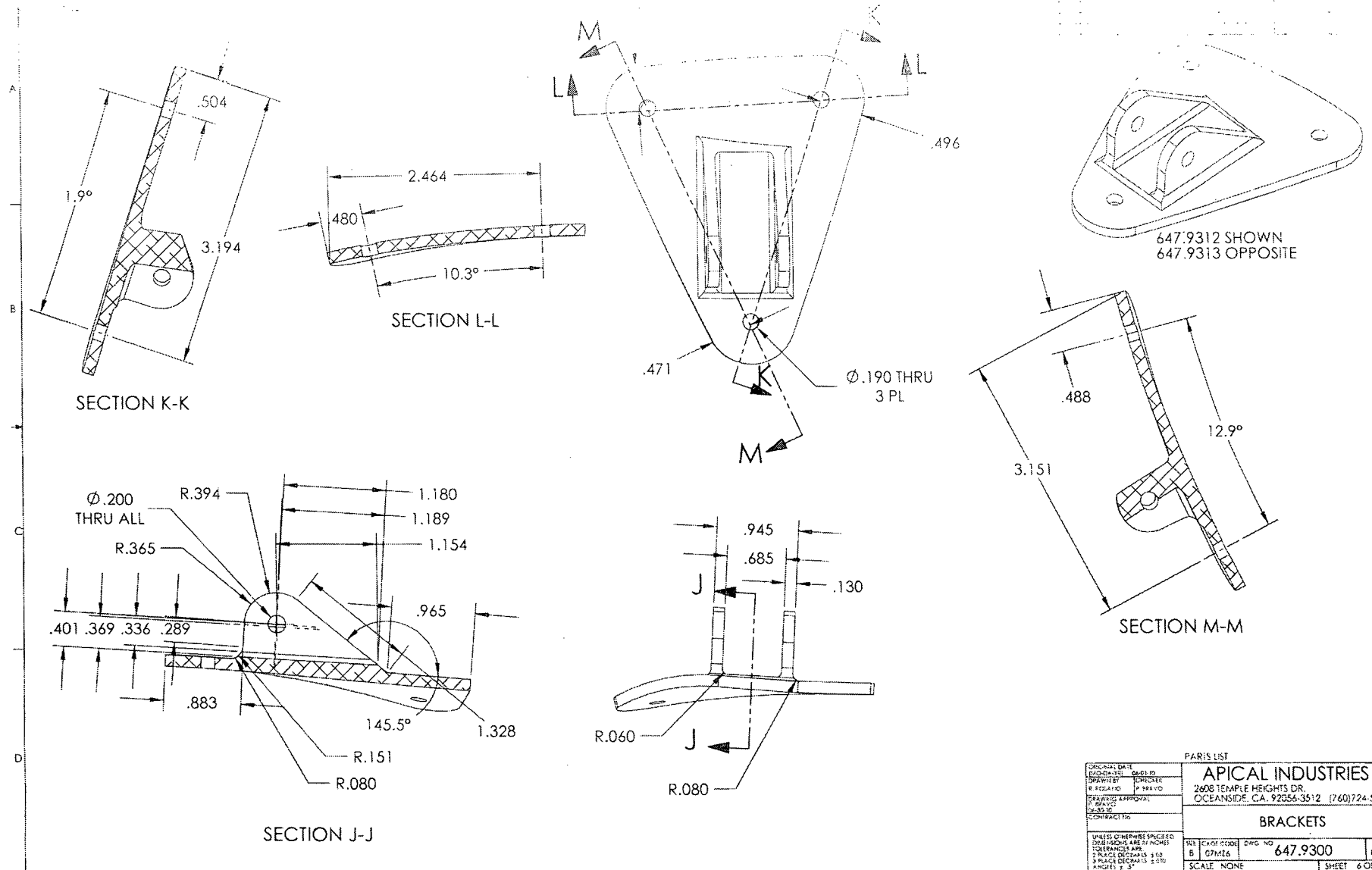
**BRACKETS**

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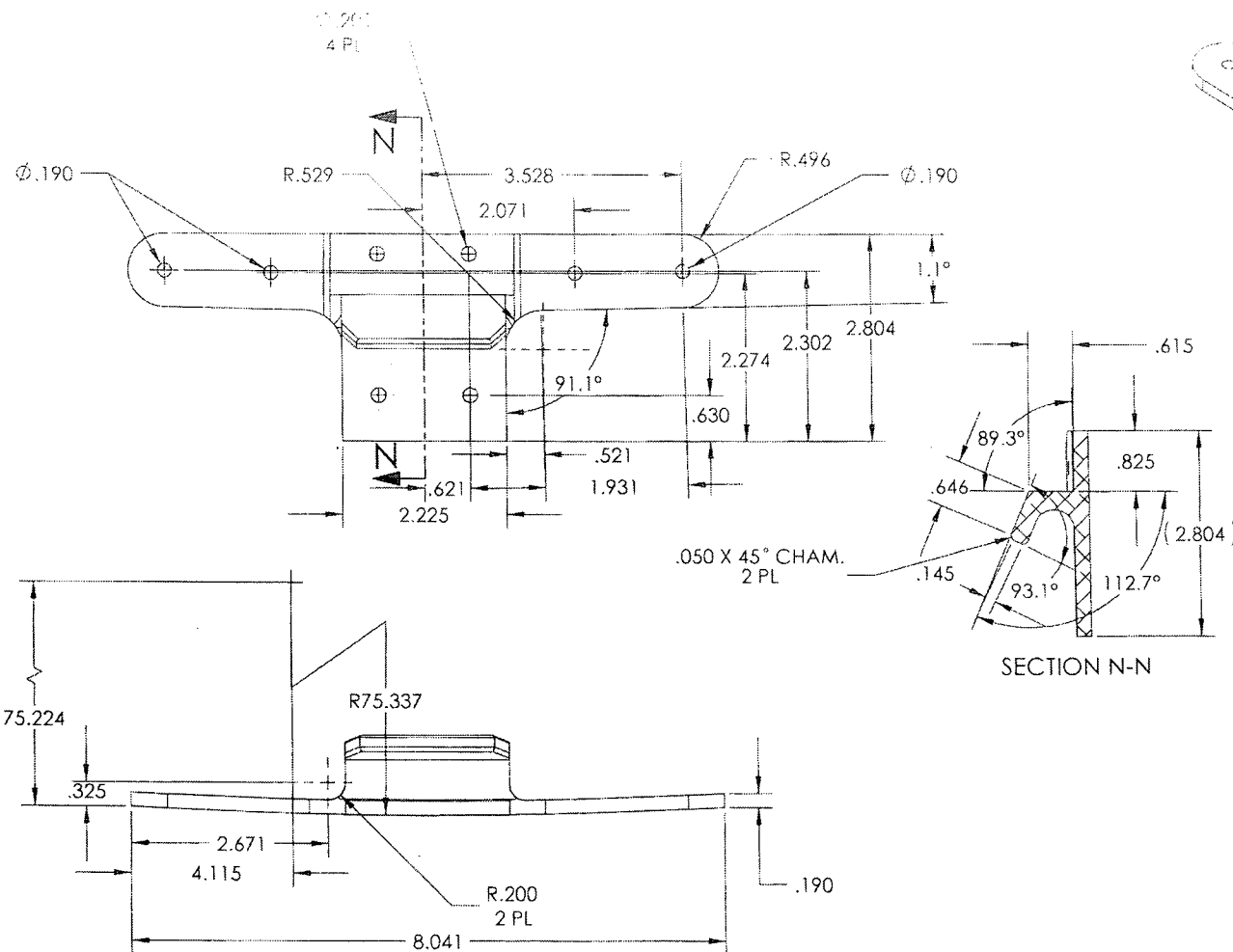
ORIGINAL DATE		APICAL INDUSTRIES	
DESIGNED BY		2608 TEMPLE HEIGHTS DR.	
DRAWN BY		OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY		BRACKETS	
DESIGNED APPROVED BY			
DRAWN APPROVED BY			
CONTRACT NO.			
THICKNESS OTHER THAN SPECIFIED			
DIMENSIONS ± .005			
10 DIMENSIONS ± .01			
2 PLACES DIMENSIONS ± .01			
ANGLES ± .1°			
REV	DATE	QTY	REV
B	07/11/16	647.9300	N/C
SCALE: NONE		SHEET 5 OF 9	

105049



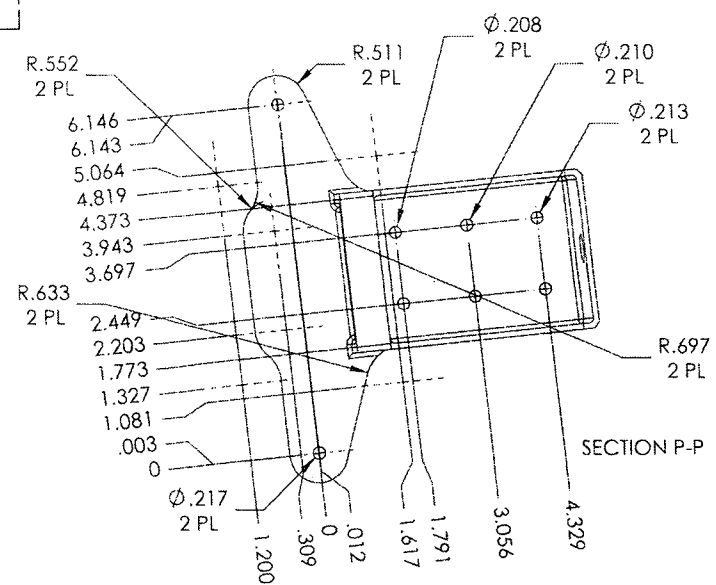
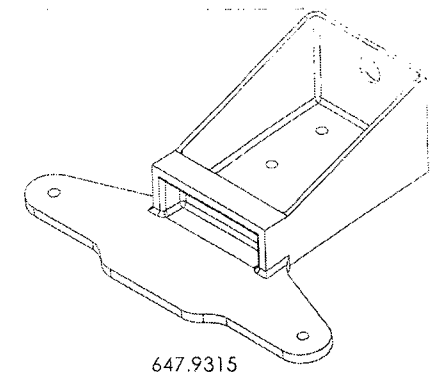
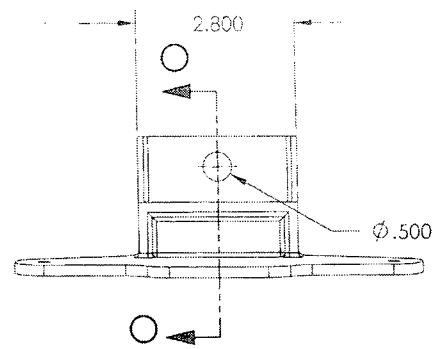
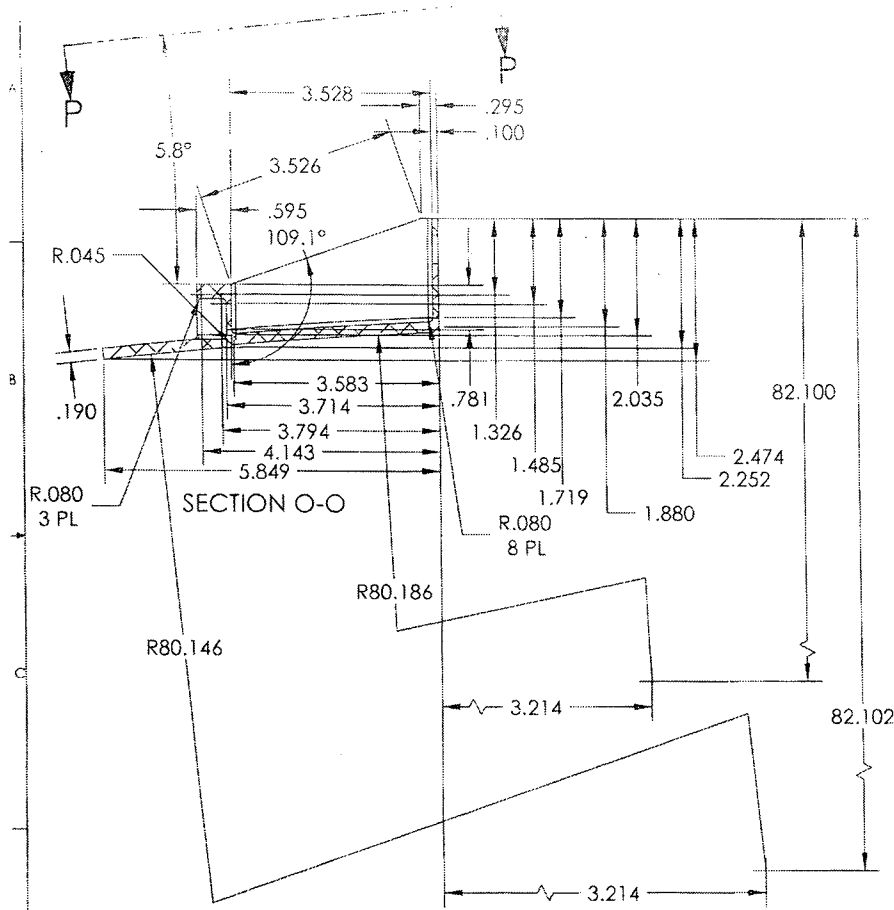
ORIGINAL DATE		DESIGNED BY	
ELECTRICITY		REVISOR	
DRAWN BY		P. BREVIO	
CHECKED BY		APPROVAL	
CONTRACT NO.		647.9300	
UNLESS OTHERWISE SPECIFIED		NO. 1	REV.
DIMENSIONS ARE IN INCHES		B	N/C
TOLERANCES ARE:		SCALE	SHEET 6 OF 9
2 PLACE DECIMALS ±.010		NONE	
3 PLACE DECIMALS ±.005			
ANGLES ±.5°			

647.9314



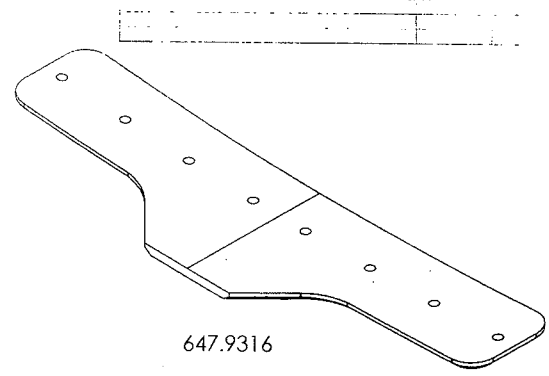
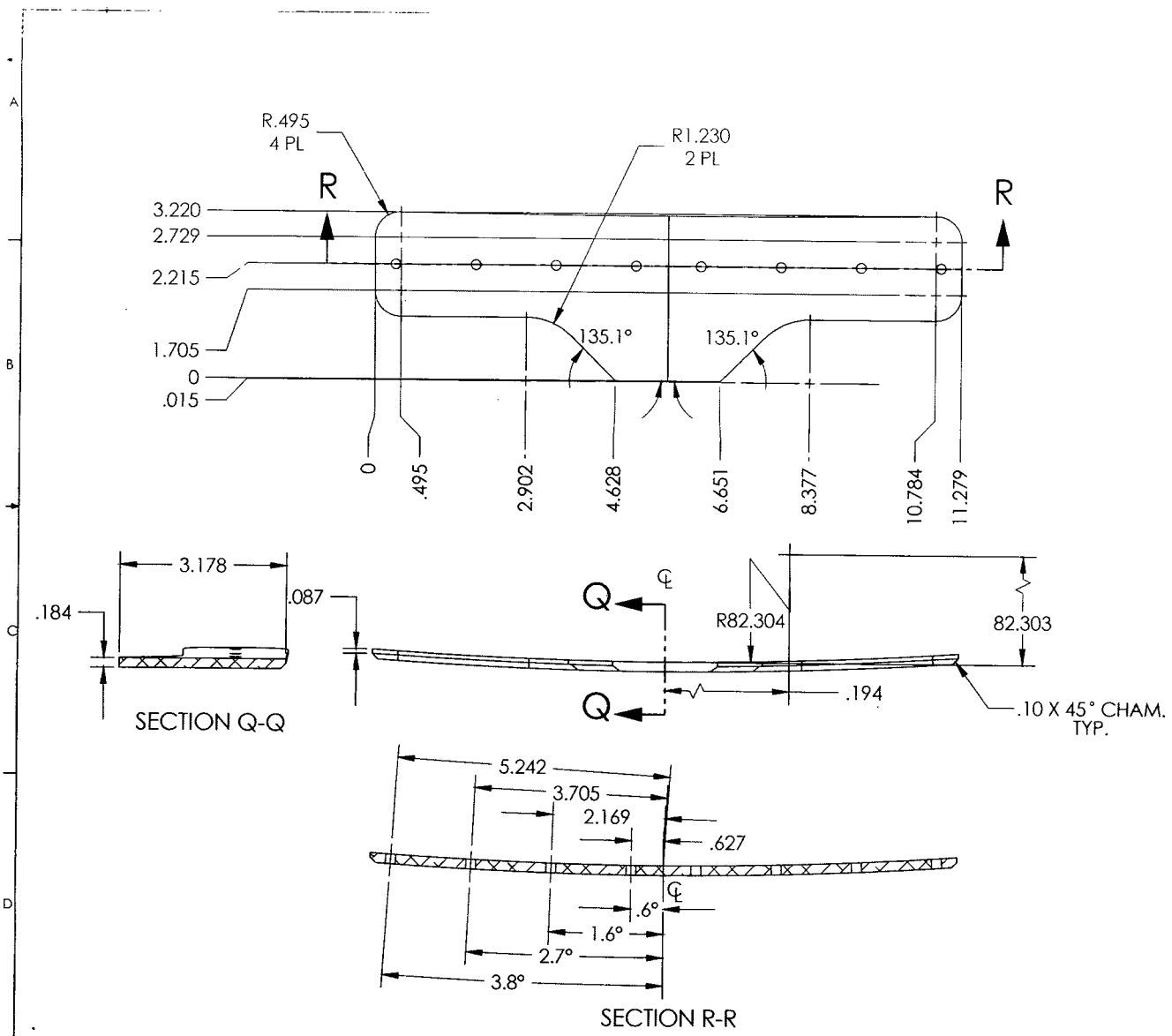
ORIGINAL DATE INVOICE (FBI) 06-21-02	APICAL INDUSTRIES		
ORIGINATOR P. BROWN	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300		
BUYER P. BROWN	BRACKETS		
BUYER APPROVAL 06-21-02			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DELIVERIES ARE F.O.B. ORIGINATOR TERMS ARE 1. PLACE ORDERS 1302 2. PLACE ORDERS 1302 3. PLACE ORDERS 1302	SR#	CASH CODE	DN# NO
	B	07A26	647.9300
	SCALE	NONE	SHEET 7 OF 9

105649



APICAL INDUSTRIES	
2608 TEMPLE HEIGHTS DR.	
OCEANSIDE, CA. 92056-3512 (760) 724-5300	
BRACKETS	
REV	DATE
B	07/02/86
SCALE	NONE
SHEET 8 OF 9	

105049



ORIGINAL DATE 10/21/10		APICAL INDUSTRIES	
DRAWN BY P. ROSANO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAVO		BRACKETS	
DRAWING APPROVAL DATE: 10/21/10		SIZE B	REV. N/C
CONTRACT NO.		CAGE CODE 07MZ6	DWG. NO. 647.9300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°		SCALE NONE	SHEET 9 OF 9







Ottawa, Ontario  
K1B 4S6

Phone # 613-899-2405

# Packing Slip

Date	Invoice #
12/23/2013	783

Ship To
Main Finished Goods Location Dart Aerospace 1270 Aberdeen Street Hawksbury, Ontario K6A 1K7

P.O. No.	Ship	Via	FOB	Project
22325	12/23/2013	delivered	Archer	

Qty	Item Code	Description
4 6	Sales Sales	647.9314P 647.9314P HST (ON) on sales  88 14-1-3



2228 Gladwin Cres.  
Ottawa, Ont.  
K1B 4S6

Telephone (613) 899-2405  
Fax (613) 226-1719

## Certificate of Compliance

To:  
Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury Ont.  
K6A 1K7

23 December 2013

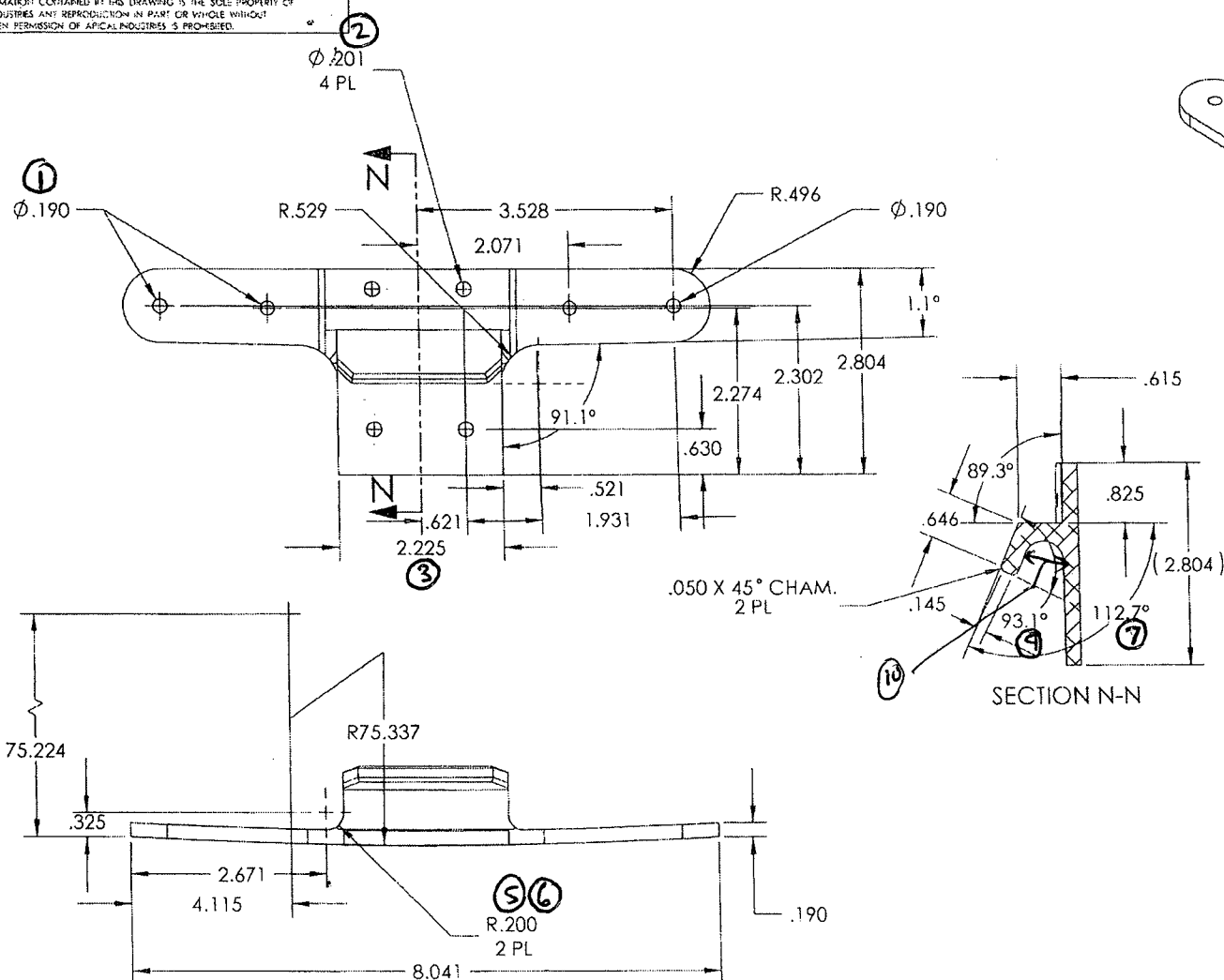
Po Number	Part Number	Quantities
22325	647.9614P	6
	647.9614P	4

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 22325 issued by Dart Aerospace Inc.

Greg Kumpula  
Quality Inspector  
Archer Precision Inc.  
2228 Gladwin Cress.  
Ottawa, Ontario  
K1B 4S6

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



APICAL INDUSTRIES		2608 TEMPLE HEIGHTS DR.		OCEANSIDE, CA. 92056-3512		(760) 724-5300	
BRACKETS		647.9300		REV		DATE	
UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		1/8" = 1"		SCALE	
DIMENSIONS ARE IN INCHES		1/8" = 1"		1/8" = 1"		1/8" = 1"	
1/8" = 1"		1/8" = 1"		1/8" = 1"		1/8" = 1"	
1/8" = 1"		1/8" = 1"		1/8" = 1"		1/8" = 1"	
1/8" = 1"		1/8" = 1"		1/8" = 1"		1/8" = 1"	

SHEET 7 OF 9



# Archer Precision

Short date 1/2/14



Plan Name 647-9314\_Rev0\_SCM1\_000

Part No.: 647.9314

Customer: Dart Aerospace

Rev.: 0

u\_jobnum \* u\_jobnum \*

u\_qtynu \* u\_qtynu \*

Customer PO.: 22325

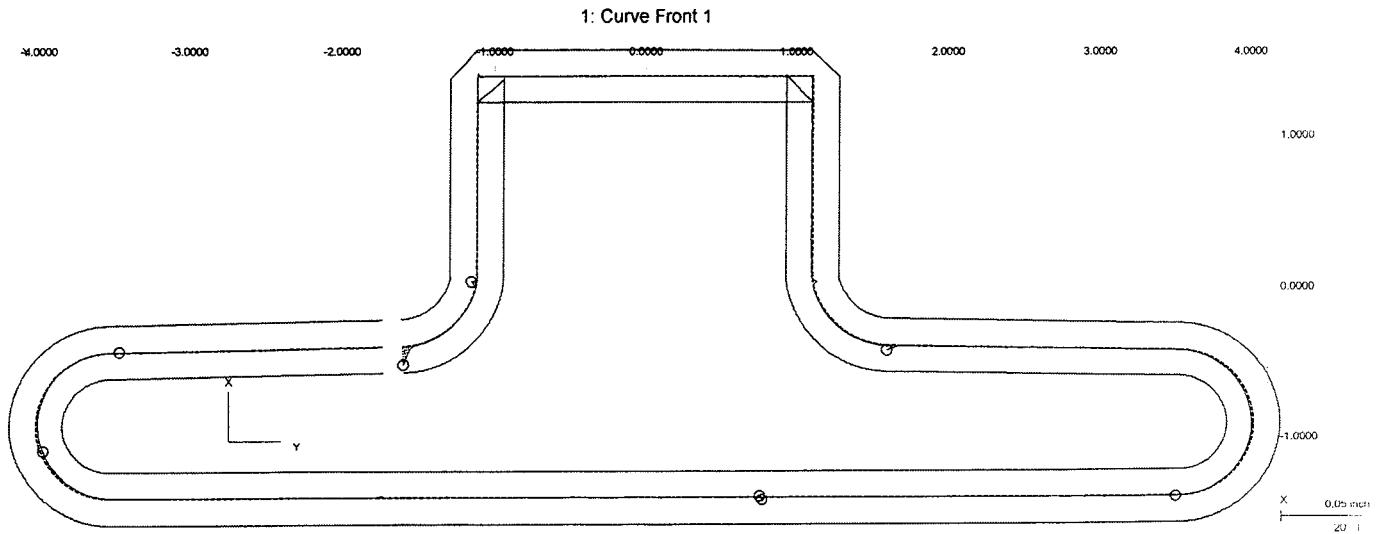
BSN: 1000012

u\_mtl \* u\_mtl \*

Incr. Smpl No.: 2

Name	ID	Actual	Nominal	pos Tol	neg Tol	Diff	<- ->
1 - Hole	D	0.19131	0.19070	0.00500	-0.00100	0.00061	-
2 - Hole	D	0.20317	0.20310	0.00500	-0.00100	0.00007	-
3 - Across Hook	CartDist	2.22442	2.22500	0.01000	-0.01000	-0.00058	-
4 - Hook Thickness	CartDist	0.24557	0.24796	0.01000	-0.01000	-0.00240	-
5 - Hook Rad Right	DIAMETER	0.40043	0.40000	0.01000	-0.01000	0.00043	-
6 - Hook Rad Left	DIAMETER	0.39339	0.40002	0.01000	-0.01000	-0.00662	-
7 - Hook Angle	A	112.72817	112.70000	0.50000	-0.50000	0.02817	-
9 - Hook Face Angle	A	93.43222	93.10000	0.50000	-0.50000	0.33222	—
10 - Hook Curve Dia	D	0.55889	0.55536	0.01000	-0.01000	0.00352	-

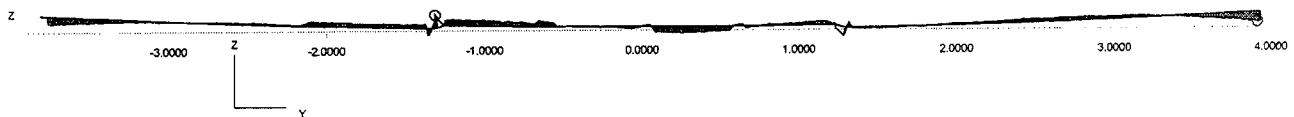
<b>ZEISS</b> <b>Calypso</b> <b>5.4.20</b>		<b>Carl Zeiss</b>		<b>Date</b> <b>Order</b>	<b>December 23, 2013</b>
<b>Part Number</b> <b>2</b>	<b>CMM Type</b> <b>CONT_G2</b>	<b>Drawing No.</b>		<b>Department:</b> <b>Operator</b>	<b>Master</b>
<b>Meas. Plan Name</b>		<b>647-9314_Rev0_SCM1_000</b>		<b>Signature:</b>	



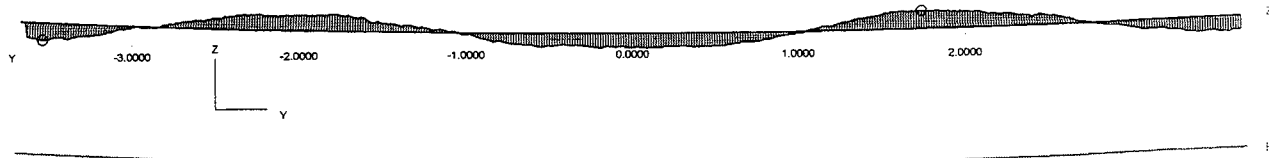
No	Identifier	Sigma [in]	Form [in]	Number of Points	Lower Tol. [in]	Upper Tol. [in]	MinInd	Min Dev. [in]	MaxInd	Max Dev. [in]	Best Fit	X [in]	Y [in]	Z [in]		X	Y	Z
1	Curve Front 1	0.0005	0.0089	500	-0.0100	0.0100	1	-0.0069	55	0.0020	Translation	0.0000	0.0000	0.0000	Rotation	0.0000	0.0000	0.0000
2	Curve Right 2	0.0003	0.0021	500	-0.0100	0.0100	1	-0.0018	310	0.0003	Translation	0.0000	0.0000	0.0000	Rotation	0.0000	0.0000	0.0000
3	Curve Back 3	0.0001	0.0014	500	-0.0100	0.0100	121	-0.0004	119	0.0010	Translation	0.0000	0.0000	0.0000	Rotation	0.0000	0.0000	0.0000
4	Curve Left 4	0.0003	0.0012	500	-0.0100	0.0100	233	-0.0010	332	0.0002	Translation	0.0000	0.0000	0.0000	Rotation	0.0000	0.0000	0.0000

<b>ZEISS</b>	<b>Calypso</b> 5.4.20	<b>Carl Zeiss</b>	<b>Date</b> Order	<b>December 23, 2013</b>
<b>Part Number</b> 2	<b>CMM Type</b> CONT_G2	<b>Drawing No.</b>	<b>Department:</b> Operator	<b>Master</b>
<b>Meas. Plan Name</b>	<b>647-9314_Rev0_SCM1_000</b>		<b>Signature:</b>	


1: Top form



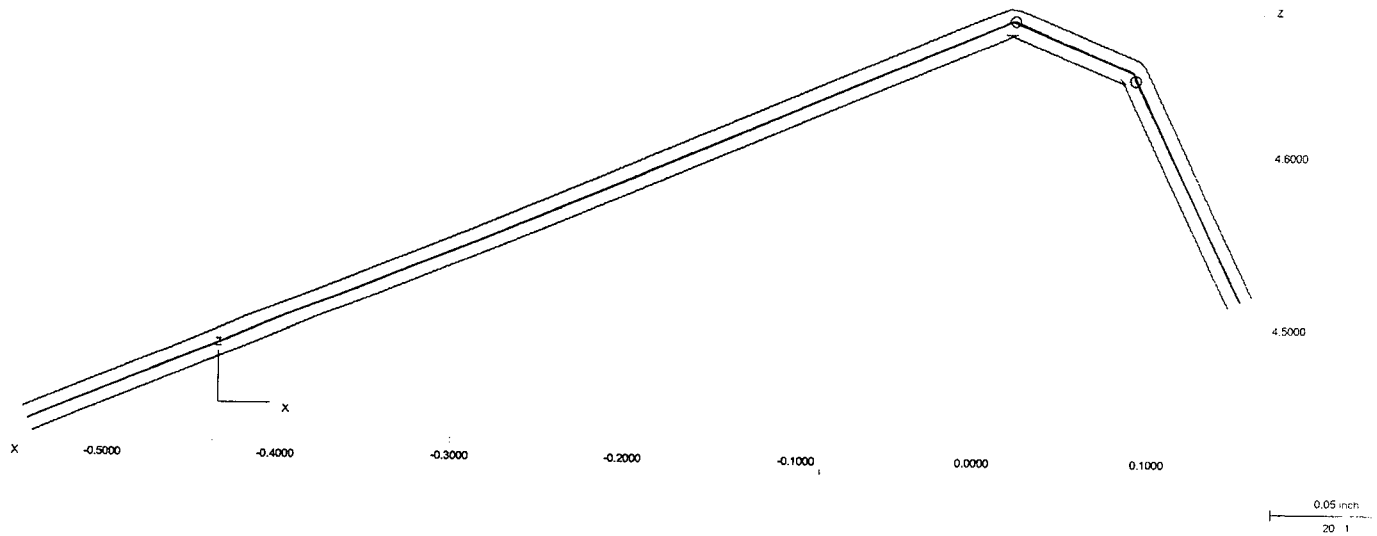
2: Under form



No	Identifier	Sigma [in]	Form [in]	Number of Points	Lower Tol. [in]	Upper Tol. [in]	MinInd	Min Dev. [in]	MaxInd	Max Dev. [in]	Best Fit	X [in]	Y [in]	Z [in]		X	Y	Z
1	Top form	0.0001	0.0008	964	-0.0100	0.0100	961	-0.0004	318	0.0005	Translation	0.0000	0.0000	0.0028	Rotation	-0.0085	0.0000	0.0000
2	Under form	0.0009	0.0026	479	-0.0100	0.0100	354	-0.0014	10	0.0013	Translation	0.0000	-0.0009	0.0037	Rotation	-0.0144	0.0000	0.0000

 <b>Calypso</b> 5.4.20		<b>Carl Zeiss</b>		<b>Date</b> Order	<b>December 23, 2013</b>
<b>Part Number</b> 2	<b>CMM Type</b> CONT_G2	<b>Drawing No.</b>		<b>Department:</b>	
<b>Meas. Plan Name</b> 647-9314_Rev0_SCM1_000				<b>Operator</b>	<b>Master</b>
				<b>Signature:</b>	

1: Hook Upper Section



No	Identifier	Sigma [in]	Form [in]	Number of Points	Lower Tol. [in]	Upper Tol. [in]	MinInd	Min Dev. [in]	MaxInd	Max Dev. [in]	Best Fit	X [in]	Y [in]	Z [in]		X	Y	Z
1	Hook Upper Section	0.0001	0.0009	480	-0.0050	0.0050	399	-0.0005	354	0.0004	Translation	-0.0031	0.0000	0.0011	Rotation	0.0000	0.0217	0.0000



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO22325**

Purchase Order Date 12/9/2013

PO Print Date 12/9/2013

Page Number 1 of 3

**Order From :**

VC-GLO001

**Ship To :** DART AEROSPACE LTD

ARCHER PRECISION INC.  
2228 GLADWIN CRESENT  
OTTAWA, ON K1B 4S6  
CA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAKED**  
12/13/12/09

**Contact Name**

**Vendor Phone** 613 899 2405

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #**

10127-2607

**Ship To Contact**

**Terms**

Net 30

**Ship To Phone**

**Currency**

CAD

**Ship Via:**

FedEx PI collect

**FOB**

Destination-Collect

**Ship Acct:**

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extend Pri
1	647.9313P AS PER DWG 647.9313 B108717	Bracket	1/31/2014 Yes 1/31/2014		4.00 Each	\$190.00	\$760.0
						<b>Line Total:</b>	<b>\$760.0</b>
2	647.9314P AS PER DWG 647.9314 B108833	Retainer Bracket	1/31/2014 Yes 1/31/2014		4.00 Each	\$252.56	\$1,010.2
						<b>Line Total:</b>	<b>\$1,010.2</b>
3	647.9314P AS PER DWG 647.9314 B105049	Retainer Bracket	1/31/2014 Yes 1/31/2014		6.00 Each	\$252.56	\$1,515.3

**Note:**

12/9/2013

8 14-1-3





A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62865

Date: 30-Jan-14

#### To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

#### Ship To


DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 8 PCS D2224 (2.00) RED ANODIZE MIL-A-8625 TYPE II CLASS 2 20 PCS 646.3110 (10.65) 9 PCS 646.3210 (14.35) 12 PCS 646.3310 (18.10) 12 PCS 646.9712 (14.50) 10 PCS 647.0310 (11.10) 10 PCS 647.9314 (11.05) 3 PCS 647.9316 (10.00) 15 PCS 647.9610 (16.05) 20 PCS 647.9612 (16.05) 12 PCS 649.5312 (10.15) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20140079	Line:	
Certificate of Conformance			
A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.			
ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY			
DATE: 30/1/14			
CERTIFIED SIGNATURE: 			
RECEIVER SIGNATURE: _____			



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO22580

Purchase Order Date 1/10/2014

PO Print Date 1/30/2014

Page Number 4 of 7

**Order From :**

VC-ATG001

**Ship To :** DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE ROAD  
ROCKLAND, ON K4K 1T2  
CANADA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone**

613-446-4544

**Ship To Contact**

**Ship To Phone**

**Ship Via:**

VENDOR'S TRUCK

**Ship Acct:**

**Buyer**

**Customer POID**

**Customer Tax #**

**Terms**

**Currency**

**FOB**

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

9	109918	646.9712 BODY	1/24/2014 Yes 1/31/2014	12.00	\$14.50	\$174.00
SAME AS ABOVE						
						Line Total: \$174.00
10	110188	647.0310 CHANNEL	1/31/2014 Yes 1/31/2014	10.00	\$11.10	\$111.00
SAME AS ABOVE						
						Line Total: \$111.00
11	105049	647.9314 RETAINER BRACKET	1/24/2014 Yes 1/31/2014	6.00	\$11.05	\$66.30
SAME AS ABOVE						
						Line Total: \$66.30

Note:

1/30/2014